What is claimed is:

1. An apparatus for detecting a frequency characteristic of a signal, the apparatus comprising:

an indication value calculator which calculates an indication value which indicates a difference between a filtering frequency band of an image signal processor and a desired filtering frequency band of the signal;

a level selector which selects a one level of a section from a plurality of sections labeled with different levels with respect to the indication value; and

a frequency characteristic determination unit which determines the selected level as the frequency characteristic.

2. The apparatus of claim 1, wherein the one level is used to adjust a filtering frequency band.

3. The apparatus of claim 1, wherein the signal is an image signal.

4. The apparatus of claim 3, wherein the indication value calculator comprises:

a resolution ratio calculator which calculates a ratio of a standard resolution of the image signal processor to a resolution of the image signal;

a frequency ratio calculator which calculates a ratio of a frequency in each pixel of the image signal to a Nyquist frequency;

a normalized frequency calculator which calculates a normalized frequency by multiplying the calculated ratio of the standard resolution of the image signal processor to the resolution of the image signal by the calculated frequency ratio;

a normalized amplitude calculator which calculates a normalized amplitude by adjusting the normalized frequency to a frequency response characteristic curve of a filter; and

an indication value setter which performs an operation on the normalized amplitude and sets a result as the indication value.

5. The apparatus of claim 4, wherein the image signal processor is an apparatus for reducing noise in the input image signal.

6. The apparatus of claim 4, wherein the image signal processor is an apparatus for enhancing details of the input image signal.

7. The apparatus of claim 4, wherein the standard resolution is a resolution of a standard resolution image signal filtered at a basic filtering frequency band of the image signal processor.

8. The apparatus of claim 4, wherein the resolution of the image signal is obtained by scaling the standard resolution to match a resolution of an image signal output apparatus.

9. The apparatus of claim 4, wherein the filter is a high-pass filter.

10. The apparatus of claim 4, wherein the indication value setter performs convolution on a frequency function of the normalized amplitude of each pixel and a frequency function of the filter and sets an absolute value of a convolution result as the indication value.

11. The apparatus of claim 10, wherein the level selector divides the indication values of all of the pixels into several sections so that the indication values belong to the plurality of sections labeled with different levels, respectively, and selects the one level of the section with respect to the indication value of each pixel.

12. The apparatus of claim 11, wherein the frequency characteristic determination unit determines the one level of the section that corresponds to most of the pixels.

13. An apparatus for reducing noise in an input signal based on a frequency characteristic, comprising:

a frequency characteristic detector which detects the frequency characteristic of the input signal; and

a noise reduction unit which reduces noise in the input signal based on the detected frequency characteristic.

14. The apparatus of claim 13, wherein the input signal is an image signal.

15. The apparatus of claim 13, wherein the frequency characteristic detector selects a one level of a section from a plurality of sections of a predetermined number with respect to an indication value and determines the selected level as the frequency characteristic, the plurality of sections being labeled with different levels and the indication value indicating a difference between a predetermined basic filtering frequency band and a desired filtering frequency band of the input signal.

16. The apparatus of claim 13, wherein the noise reduction unit filters the input signal by adjusting a filtering frequency band based on the detected frequency characteristic.

17. An apparatus for enhancing details of an input signal, comprising:

a frequency characteristic detector which detects a frequency characteristic of the input signal; and

a detail enhancement unit which enhances the details of the input signal based on the detected frequency characteristic.

18. The apparatus of claim 17, wherein the input signal is an image signal.

19. The apparatus of claim 17, wherein the frequency characteristic detector selects a one level of a section from a plurality of sections of a predetermined number with respect to an indication value and determines the

selected level as the frequency characteristic, the plurality of sections being labeled with different levels and the indication value indicating a difference between a predetermined basic filtering frequency band and a desired filtering frequency band of the input signal.

20. The apparatus of claim 17, wherein the detail enhancement unit filters the signal by adjusting a filtering frequency band of the input signal based on the frequency characteristic, amplifying the filtered signal, and overlapping the amplified signal over the input signal.

21. A method of detecting a frequency characteristic of an input signal, comprising:

calculating an indication value which indicates a difference between a predetermined basic filtering frequency band and a desired filtering frequency band of the input signal;

selecting a one level of a section from a plurality of sections labeled with different levels with respect to the indication value; and

determining the selected level as the frequency characteristic.

22. The method of claim 21, wherein the one level is used to adjust a filtering frequency band.

23. The method of claim 21, wherein the input signal is an image signal.

24. The method of claim 23, wherein calculating the indication value comprises:

calculating a ratio of a standard resolution of an image signal processor to a resolution of the image signal;

calculating a ratio of a frequency of each pixel of the image signal to a Nyquist frequency;

calculating a normalized frequency by multiplying the calculated ratio of the standard resolution of the image signal processor to the resolution of the image signal by the calculated frequency ratio;

calculating a normalized amplitude by adjusting the normalized frequency to a frequency response characteristic curve of a filter; and

performing an operation on the normalized amplitude and setting a result as the indication value.

25. The method of claim 24, wherein the image signal processor is an apparatus for reducing noise in the input image signal.

26. The method of claim 24, wherein the image signal processor is an apparatus for enhancing details of the input image signal.

27. The method of claim 24, wherein the standard resolution is a resolution of a standard resolution image signal filtered at a basic filtering frequency band of the image signal processor.

28. The method of claim 24, wherein the resolution of the image signal is obtained by scaling the standard resolution to match an image signal output apparatus.

29. The method of claim 24, wherein the filter is a high-pass filter.

30. The method of claim 24, wherein during the setting of the indication value, convolution is performed on a frequency function of the normalized amplitude of each pixel and a frequency function of the filter and an absolute value of convolution results is set as the indication value.

31. The method of claim 30, wherein during the selection of the one level of the section, the indication values of all of the pixels are divided into several sections so that the indication values belong to the plurality of sections labeled with different levels, respectively, and the one level of the section selected from the plurality of sections is selected with respect to the indication value of each pixel.

32. The method of claim 31, wherein during the determination of the selected level as the frequency characteristic, the one level of the section which corresponds to most of the pixels is determined as the frequency characteristic.

33. A method of reducing noise in an input signal based on a frequency characteristic, comprising:

detecting the frequency characteristic of the input signal; and

reducing noise in the input signal based on the detected frequency characteristic.

34. The method of claim 33, wherein the input signal is an image signal.

35. The method of claim 33, wherein during the detection of the frequency characteristic, a one level of a section from a plurality of sections of a predetermined number is selected with respect to an indication value and the selected level is determined as the frequency characteristic, the plurality of sections being labeled with different levels and the indication value indicating a difference between a predetermined basic filtering frequency band and a desired filtering frequency band of the input signal.

36. The method of claim 33, wherein during reducing noise, the signal is filtered by adjusting a filtering frequency band based on the frequency characteristic.

37. A method of enhancing details of an input signal, comprising:

detecting a frequency characteristic of the input signal; and

enhancing the details of the input signal based on the detected frequency characteristic.

38. The method of claim 37, wherein the input signal is an image signal.

39. The method of claim 37, wherein during the detection of the frequency characteristic, a one level of a section from a plurality of sections of a predetermined number is selected and the selected level is determined as the frequency characteristic, the plurality of sections being labeled with different levels and the indication value indicating a difference between a predetermined basic filtering frequency band and a desired filtering frequency band of the signal.

40. The method of claim 37, wherein during enhancing the details of the signal, the signal is filtered by adjusting a filtering frequency band and overlapping the filtered signal over the input signal.

41. A computer readable recording medium for recording a computer program code for enabling a computer to provide a service of detecting a frequency characteristic of an input signal, the service comprising the steps of:

calculating an indication value which indicates a difference between a predetermined basic filtering frequency band and a desired filtering frequency band of the input signal;

selecting a one level of a section from a plurality of sections labeled with different levels with respect to the indication value; and

determining the selected level as the frequency characteristic.

42. The computer-readable recording medium of claim 41, wherein the one level is used to adjust a filtering frequency band.

43. The computer-readable recording medium of claim 41, wherein the input signal is an image signal.

44. The computer-readable recording medium of claim 43, wherein calculating the indication value comprises:

calculating a ratio of a standard resolution of an image signal processor to a resolution of the image signal;

calculating a ratio of a frequency of each pixel of the image signal to a Nyquist frequency;

calculating a normalized frequency by multiplying the calculated ratio of the standard resolution of the image signal processor to the resolution of the image signal by the calculated frequency ratio;

calculating a normalized amplitude by adjusting the normalized frequency to a frequency response characteristic curve of a filter; and

performing an operation on the normalized amplitude and setting a result as the indication value.

45. The computer-readable recording medium of claim 44, wherein the image signal processor is an apparatus for reducing noise in the input image signal.

46. The computer-readable recording medium of claim 44, wherein the image signal processor is an apparatus for enhancing details of the input image signal.

47. The computer-readable recording medium of claim 44, wherein the standard resolution is a resolution of a standard resolution image filtered at a basic filtering frequency band of the image signal processor.

48. The computer-readable recording medium of claim 44, wherein the resolution of the image signal is obtained by scaling the standard resolution to match an image signal output apparatus.

49. The computer-readable recording medium of claim 44, wherein the filter is a high-pass filter.

50. The computer-readable recording medium of claim 44, wherein during the setting of the indication value, convolution is performed on a frequency function of the normalized amplitude of each pixel and a frequency function of the filter and an absolute value of a convolution result is set as the indication value.

51. The computer-readable recording medium of claim 50, wherein during the selection of the one level of the section, the indication values of all of the pixels are divided into several sections so that the indication values belong to the plurality of sections labeled with different levels, respectively,

and the one level of the section selected from the plurality of sections is selected with respect to the indication value of each pixel.

52. The computer-readable recording medium of claim 51, wherein during the determination of the selected level as the frequency characteristic, the one level of the section which corresponds to most of the pixels is determined as the frequency characteristic.

53. A computer readable recording medium for recording a computer program code for enabling a computer to provide a service of reducing noise in an input signal based on a frequency characteristic, the service comprising the steps of:

detecting the frequency characteristic of the input signal; and

reducing noise in the input signal based on the detected frequency characteristic.

54. The computer-readable recording medium of claim 53, wherein the input signal is an image signal.

55. The computer-readable recording medium of claim 53, wherein during the detection of the frequency characteristic, a one level of a section from a plurality of sections of a predetermined number is selected with respect to an indication value and the selected level is determined as the frequency characteristic, the plurality of sections being labeled with different levels and the indication value indicating a difference between a predetermined basic

filtering frequency band and a desired filtering frequency band of the input signal.

56. The computer-readable recording medium of claim 53, wherein during reducing noise, the input signal is filtered by adjusting a filtering frequency band based on the frequency characteristic.

57. A computer readable recording medium for recording a computer program code for enabling a computer to provide a service of enhancing details of an input signal, the service comprising the steps of:

detecting a frequency characteristic of the input signal; and

enhancing the details of the input signal based on the detected frequency characteristic.

58. The computer-readable recording medium of claim 57, wherein the input signal is an image signal.

59. The computer-readable recording medium of claim 57, wherein during the detection of the frequency characteristic, a one level of a section from a plurality of sections of a predetermined number is selected and the selected level is determined as the frequency characteristic, the plurality of sections being labeled with different levels and the indication value indicating a difference between a predetermined basic filtering frequency band and a desired filtering frequency band of the signal.

60. The computer-readable recording medium of claim 57, wherein during enhancing the details of the signal, the signal is filtered by adjusting a filtering frequency band and overlapping the filtered signal over the input signal.